



City of Tukwila

2017 Update

Stormwater Management Program Plan

(SWMP) Plan

Prepared By

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City of Tukwila

Stormwater Management Program Plan

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INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the federal Clean Water Act. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies. In Washington, the NPDES delegated permit authority is the Washington State Department of Ecology (DOE).

The City of Tukwila prepared this document to meet the requirements for a Stormwater Management Program (SWMP) Plan as required by the NPDES Phase II Stormwater Permit issued to the City of Tukwila by DOE. The SWMP Plan was developed to reduce pollutant discharges from the City's Municipal Separate Storm Sewer System (MS4).

Tukwila is defined as a Phase II community by DOE and, therefore, mandated to comply with the requirements of the NPDES Phase II Stormwater Permit. Phase II communities are those that:

- Own and operate a storm drain system
- Discharge to surface waters of the state
- Are located in urbanized areas
- Have a population of more than 1,000

Municipalities with a population of over 100,000 (as of the 2010 census) have been designated as Phase I communities and must comply with DOE's Phase I NPDES Municipal Stormwater Permit. Tukwila's population is below the 100,000 threshold and must comply with the Phase II Municipal Stormwater Permit. Approximately 100 other municipalities in Washington must now comply with the Phase II Permit, as operators of small "municipal separate storm sewer systems" (MS4). Ecology's Phase II Permit is available on Ecology's website at:

<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wwphiipermmit.html>

Tukwila completed requirements of its initially issued NPDES Phase II Stormwater Permit which expired July 31, 2013. Tukwila applied to the Department of Ecology and was issued a new five-year term NPDES Phase II Stormwater Permit on August 1, 2012 with an effective date of August 1, 2013 and an expiration date of July 31, 2018. The Permit was then modified and reissued December 17, 2014 with an effective date of January 16, 2014 to further control the discharge of pollutants to protect surface water and ground water quality in Washington State

The Permit allows discharge of stormwater runoff from municipal drainage systems into the state's water bodies (i.e., streams, rivers, lakes, wetlands, etc.) *if* municipalities implement programs to protect water quality by reducing the discharge of "non-point source" pollutants to the "maximum extent practicable" (MEP). In addition, the City must meet "all known and reasonable treatment" (AKART) through application of Permit specified "best management practices" (BMPs).

The majority of Tukwila's MS4 either drains to Riverton Creek, Southgate Creek, Gilliam Creek, Johnson Creek or directly to the Green/Duwamish River. The remaining areas infiltrate into the ground.

NPDES PHASE II PROGRAM COMPONENTS

The practices specified in the Permit are collectively referred to as the SWMP Plan and grouped under the following program components:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Municipal Operation and Maintenance
- Special condition, Total Maximum Daily Load Requirements
- Special condition, Monitoring and Assessment

The following sections describe requirements of each program component and the City's planned activities to meet the requirements. In general, the City of Tukwila is currently performing all previously required Permit activities and has programs in place to address the updated Permit requirements.

1. Public Education and Outreach

1.1 Permit Requirements

The Permit (Section S5.C.1.) requires the City to:

- Target and implement an educational and outreach program that will build general awareness to the general public, businesses, engineers, contractors, developers, development staff and land use planners and other City employees that will help to reduce and eliminate behaviors and practices that cause or contribute too adverse stormwater impacts.
- Implement an outreach program that targets a selected audience with the purpose of improving their understanding and behaviors that impact surface water.
- Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings, and education activities.
- Measure the understanding and adoption of the targeted behaviors for at least one selected audience and one selected topic.
- Track and maintain records of public education and outreach activities.

1.2 Target Audiences and Activities

The City's education and outreach program targets the following audiences:

- General public, with an emphasis on school age children.
- Contractors, developers, carpet cleaning, landscapers, automotive/truck facilities, and general businesses, specifically restaurants.
- Residents/homeowners and apartment managers/owners.
- City development staff, land use planners, maintenance personnel and other City employees.

The City uses the following resources to inform the public of stormwater topics:

- Tukwila's government Channel 21, which was implemented as a tool to provide updates and various types of information to the public.
- Tukwila Reporter, Hazelnut Newsletter, various brochures, handouts, and bulletin boards at various locations,
- NPDES website where public notices, meeting dates, educational videos and course catalogs can be viewed.
- Urban Watershed Display Boards at five strategic locations on the Green/Interurban trail along the Green/Duwamish River.

The City uses the following activities to engage with the public:

- The City partners with Forterra, EarthCorps, and Friends of Duwamish Hill Preserve to provide stewardship training and restoration activities in City parks and shoreline areas.
- The Green Tukwila 20-year Stewardship Plan is complete and site specific Stewardship Plans are being developed for three of 17 various parks. These plans will be the guideline for restoration and stewardship activities.
- Provide an outreach booth at the City's annual Backyard Wild Life Festival, giving exposure to the City's SWMP Plan and encouraging input to the Plan. This year the outreach booth will again emphasize Low Impact Development and Illicit Discharge Detection and Elimination. In addition, target school age children by challenging them with stormwater quality questions.
- Display an NPDES inspection truck and various IDDE posters at the annual City Touch a Truck event.
- Partner with Environmental Coalition of South Seattle (ECOSS) and provide a spill kit, spill plan and training to 25 diverse businesses through ECOSS Spill Kit Incentive Program.
- This year the City phone survey program will target citizens, restaurants, property owners/managers and automotive companies in the subject areas of general impacts of stormwater on surface waters and LID principles. The survey will be used to measure the citizen's knowledge of proper stormwater practices.
- This year the City inserted information regarding LID, surface water rates, frequently-asked stormwater questions and keeping rivers/streams clean into its surface water utility billing which is mailed semi-annually.
- Continue to track and maintain records of the City's public education and outreach activities.
- Summarize this year's Public Education and Outreach" activities in the Annual Report.

2. PUBLIC INVOLEMENT AND PARTICIPATION

2.1 Permit Requirements

The Permit (Section S5.C.2) requires the City to:

- Provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participating in

developing rate-structures, SWMP Plan development and implementation or other similar activities.

- Make available and post the current SWMP Plan and annual report for the previous years on the City's website no later than May 31 of each year. Make available to the public all other documents to be submitted to DOE as required by the Permit.

2.2 Activities

The City of Tukwila uses the following opportunities for Public Involvement and Participation:

- The public is invited to all City Council, Committee of the Whole, and Transportation and Infrastructure Committee meetings including workshops where input on NPDES Phase II related topics is accepted.
- Provide notices of upcoming workshops, in the Tukwila Reporter, City's NPDES website, and City calendar. In addition, notices will be posted at strategic locations such as City Hall, Public Works and Community Development area and the Tukwila Community Center.
- The City maintains the most current SWMP Plan and Annual Report on its NPDES website. These documents are also made available to the public upon request.
- Invite the public to participate in the decision making process involving proposed rate increases, and implementation and update of the annual SWMP Plan through advisory councils, public meetings, and watershed committees.
- Provide NPDES Phase II updates on the City's NPDES website.
- The City will make available and update its website with current NPDES information including the current SWMP Plan and Annual Report on its website: www.tukwilawa.gov/pubwks/npdes by May 31 of each year.
- Summarize this year's Public Involvement and Participation in the 2016 Annual report.

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to:

- Implement an ongoing Illicit Discharge Detection and Elimination (IDDE) program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into our MS4.
- Periodically update the City's municipal storm sewer system map.
- Have an ordinance in place to effectively prohibit non-stormwater, illegal discharges, and dumping into the City's MS4, including locating priority areas likely to have illicit discharges.
- Implement a field screening methodology appropriate to the characteristics of the MS4 and water quality concerns. Complete field screening for at least 40% of the MS4 no later than December 31, 2017, and on average 12% each year thereafter.

- Implement an ongoing program designed to detect, identify and address non-stormwater discharges, illicit connections, and spills. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper waste disposal.
- Provide training to appropriate City employees on IDDE. Document training events, staff attendance and maintain records of activities conducted to meet Permit requirements. Conduct follow-up training as necessary to address changes in procedures, techniques, requirements, or staffing.

3.2 Activities

The City of Tukwila has an ongoing IDDE program in place that include the following activities:

- The City conducts residential, commercial, and industrial storm drainage inspections of permit issued projects. In addition, the City has an ongoing business inspection program that targets businesses with potential pollution generating activities.
- The City maintains a geographic (GIS) mapping program of its stormwater drainage system which is used to conduct IDDE investigations. These maps are available to the public and interested parties upon request.
- The City has an ordinance and program in place that prohibits non-stormwater, illegal discharges, and dumping into the City's MS4, including locating priority areas likely to have illicit discharges. The ordinance also provides for escalating enforcement.
- The City has an active IDDE inspection program that includes both private and public stormwater facilities using methods indicated in the Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual
- The City is active with field screening of all accessible stormwater outfalls.
- The City's Maintenance Department provides ongoing video inspection of the public stormwater conveyance system. In addition, ongoing inspections of catch basin/manholes, ditches and stormwater BMPs are conducted.
- The City has an advertised reporting phone number, (206) 433-1860, where illegal dumping, illicit discharges and spills can be reported. Also, the City initiated Tukwila Works where online reporting is available.
- Appropriate training is provided to City employees, including new hires on IDDE into the City's MS4.
- Provide and make available various brochures to help increase public awareness of the City's stormwater issues. Continue to provide public outreach videos on the City's NPDES website.
- The City provides information regarding the hazards associated with illegal discharges and improper waste disposal to the general public, businesses, and public employees.
- The City has a Suds Safe Car Wash Program that makes car wash kits available to Tukwila citizens for fund raising events held within Tukwila city limits.
- Track and document IDDE activities and summarize in the 2016 Annual Report.

4. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

4.1 Permit Requirements

The Permit (Section S5.C.4) requires the City to:

- Implement and enforce an ordinance or other mechanism that addresses stormwater runoff and pollutant generating activities to its MS4 from any new development, redevelopment, and construction site activities. This applies to both private and public development, including roads.
- Have in place a permitting process for residential and commercial site plan review, inspection, and enforcement capability necessary to implement the requirements of the Permit.
- Have provisions in place to verify adequate long-term operation and maintenance (O&M) of new stormwater treatment and flow control BMPs/facilities permitted and constructed. Establish maintenance standards that are as protective as those in Chapter 4 of Volume V of the 2012 *Stormwater Management Manual for Western Washington* by December 31, 2016.
- Make available as applicable copies of the “*Notice of Intent for Construction Activity*” and copies of the “*Notice of Intent for Industrial Activity*” to representatives of proposed new development and redevelopment.
- Ensure proper staff is trained to conduct inspection and enforcement as necessary and provide follow-up training as needed to address changes in procedures, techniques, or staffing. Record and maintain records of training provided and a list of staff that have been trained.
- Review and revise the City’s development codes, standards, and specifications to incorporate and require Low Impact Development (LID) principles and LID best management practices (BMPs) as the preferred method for development by December 31, 2016.
- Participate in watershed-scale stormwater planning under condition S5.C.5.c of the Phase I Municipal Stormwater General Permit if required.
- Track and document controlling runoff activities and summarize in the Annual Report.

4.2 Activities

The City has an active program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites that includes the following:

- The City adopted and implements the 2016 *King County Surface Water Design Manual (KCSWDM)* as direction to address stormwater runoff and water quality for both public and private projects, including roads.

- As part of the permitting process, pre-application meetings and weekly plan review meetings are conducted to insure applicants project plan submittal will meet stormwater regulations and that long-term operation and maintenance of water quality and flow control will meet the *2016 KCSWDM* maintenance standards.
- All construction sites are inspected prior to start, during, and post construction. This includes annual post-construction of all commercial and residential treatment and flow control BMPs/facilities whereby maintenance responsibility, standards and inspection procedures are addressed.
- The City has a long term Operations and Maintenance (O&M) program for post-construction stormwater facilities and BMPs that include inspection, review, and documentation.
- The City directs representatives of proposed new development and redevelopment to the Department of Ecology's construction stormwater website: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/enoi.html> and if applicable make available to the representatives a "Notice of Intent (NOI) for Industrial Activity".
- Staff responsible for inspection are fully trained and receive ongoing training in erosion control, low impact development, stormwater, and updated inspection techniques. Records of training are maintained and available upon request.
- Document and maintain records of all new development and redevelopment and construction site activities, including inspections and enforcement actions.
- The City incorporated into its development-related codes, rules, standards, and enforceable documents, Low Impact Development (LID) and Best Management Practices (BMPs) making LID and BMPs the preferred method for development.
- The City will continue to train pertinent employees on LID and BMPs. In addition, post LID training events on the City's website.
- Currently, King County has not selected Tukwila as a participant in the watershed-scale stormwater planning process, consequently, no action required.
- Track and document Controlling Runoff activities and summarize in the 2016 Annual Report.

5. MUNICIPAL OPERATIONS AND MAINTENANCE

5.1 Permit Requirements

The Permit (Section S5.C.5) requires the City to:

- Implement an operations and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from the MS4 and municipal operations.
- Implement maintenance standards that are as or more protective, of facility functions than those specified in *Chapter 4 of Volume V of the 2012 Stormwater Management Manual for Western Washington* by December 31, 2016.
- Conduct annual inspections of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities, and conduct necessary maintenance actions that will meet City adopted standards.

- Conduct spot checks, of City owned flow control and water quality facilities after major storm events, and repair if needed or perform any necessary maintenance.
- Inspect all City owned catch basins and inlets at least once no later than August 1, 2017 and every two years thereafter. Clean catch basins if needed to comply with maintenance standards.
- Maintain compliance with an established inspection program designed to inspect all sites, achieving at least 95% of inspections per requirements of the Permit.
- Implement an operations and maintenance (O&M) program with the ultimate goal of preventing or reducing pollutant runoff from all lands owned or maintained by the City, including but not limited to, streets, parking lots, roads, highways, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities.
- Conduct ongoing training for employees whose primary construction operations or maintenance job functions may impact stormwater. Document and maintain records of training provided and the staff trained.
- Training public works personnel including field staff, new employees, development review and planning department personnel relating to Low Impact Development (LID) principals and LID Best Management Practices (BMPs).
- Provide a Stormwater Pollution Prevention Plan (SWPPP) for all City owned or operated heavy equipment maintenance or storage yards and material storage yards. A schedule for implementation of structural BMPs and periodic inspections shall be included in the SWPPP.
- Maintain ongoing records of inspections, maintenance, or repairs conducted to meet performance measures.
- Track and document O&M activities and summarize in the 2016 Annual Report.

5.2 Activities

The City of Tukwila's Operations & Maintenance (O&M) program includes the following:

- Adoption of the *2016 King County Surface Water Design Manual (KCSWDM)* in December 2016 which is used to implement our O&M program reducing and preventing pollutant runoff from municipal operations.
- Adoption of the *2016 King County Stormwater Pollution Prevention Manual (KCSPPM)* in December 2016 which is used as a maintenance standard guideline for industrial, commercial, and multi-family and residential properties.
- Catch basins and conveyance system including flow and water quality facilities are inspected, cleaned, and maintained on a circuit based program and as necessary annually.
- Staff maintains a list of potential problem areas that are monitored and maintained prior to, during and after major storm events. Additional inspections occur at the discretion of the surface water department.
- Continue ongoing inspection and necessary maintenance of all water quality and flow control facilities, including catch basins owned and operated by the City.
- Continue with the City's street sweeping program helping to reduce the amount of sediment and associated waste from entering the storm drainage system.

- Provide necessary training for City employees whose job functions may impact stormwater.
- The City has in place a SWPPP for each of its maintenance and storage yards that is reviewed annually to determine if updates are needed. In addition, records are kept of routine inspections of these facilities and their BMPs.
- Track and document O&M activities and summarize in the 2016 Annual Report.

7. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD

The Permit (Special Condition Section S7) requirements:

The Permit (Section S7) requirements apply if an applicable Total Maximum Daily Load (TMDL) is approved for stormwater discharges from MS4s owned or operated by the Permittee. Applicable TMDLs are TMDLs which have been approved by EPA on or before the issuance date of this Permit or prior to the date that Ecology issues coverage under this permit, whichever is later. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards. The DOE determines the reduction of pollutant discharge needed to be compliant with water quality standards.

7.1 Activities

- A TMDL has not been established for the City of Tukwila at this time, consequently no action needed.

8. MONITORING AND ASSESSMENT

The Permit (Special Condition Section S8) requires the City to:

- Notify DOE of its choice to independently conduct Status and Trends Monitoring and Effectiveness Studies, or participate by paying annually into the Regional Stormwater Monitoring Program (RSMP) that will be conducted by DOE.
- Pay into the RSMP to implement the Source Identification Information Repository (SIDR) element of the RSMP.
- Track and Document additional monitoring conducted and summarize in the 2016 Annual Report.

8.1 Current Activities

- The City paid a fee of \$4,444.00 into the RSMP to have DOE conduct the Status and Trends Monitoring
- The City paid a fee of \$7,405.00 into the RSMP to have DOE conduct the Effectiveness Studies.
- The City paid a fee of \$687.00 into the RSMP to have DOE conduct the Source ID and Diagnostic Monitoring.

The total fee of \$12,536 is due each year by August 15th until the permit expiration date of July 31, 2018.

CONCLUSION

On August 1, 2013, the City of Tukwila's new 5-year term NPDES Phase II permit went into effect and was modified January 16, 2014. This Surface Water Management Program Plan has been prepared to demonstrate compliance with the requirements of this current NPDES Phase II Permit. This SWMP Plan will be a working document with updates annually until the permit expires on July 31, 2018. LID and monitoring requirements are the significant changes to the new Permit.

The City's Public Education and Outreach Program is an extension of the previous permit term and will continue to grow with the planned activities. The City of Tukwila will continue to reach out and encourage public involvement and participation in the City's SWMP Plan with the existing notification process.

The City's IDDE Program is in place, which includes a spill hotline, and will be reviewed periodically to ensure performance measures are met.

The City adopted the *2016 KCSWDM*, *KCSPPM* and revised its standards and codes to include LID and BMPs as the preferred method for development in December 2016, and uses it for controlling runoff from new development, redevelopment, and construction sites.

The City of Tukwila's Operations & Maintenance (O&M) is very active in all areas of permit compliance. It should be noted; The *2016 KCSWDM* & *KCSPPM* have new maintenance standards that O&M will follow.

Coordination efforts will continue with neighboring jurisdictions and be reviewed to determine where improvements are needed to remove jurisdictional barriers.

Total Maximum Daily Load requirements in Tukwila have not been determined by DOE to date. However, the City will prepare for this requirement if and when it comes due.

The City chose to participate in the RSMF collective fund and have DOE administer and conduct the Monitoring and Assessment for this Permit term.

Additional information on the City's NPDES program can be found online at <http://www.tukwilawa.gov/pubwks/npdes.html>.

The public is encouraged to participate in the development of the SWMP Plan. Please contact Greg Villanueva of the City of Tukwila's Public Works Department with questions, comments, or ideas at:

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